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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,668	06/25/2003	Don Hannula	009103-020500	4758
20350	7590 01/25/2005		EXAM	INER
	D AND TOWNSEND A	WINAKUR, E	WINAKUR, ERIC FRANK	
TWO EMBA	RCADERO CENTER			
EIGHTH FLOOR			ART UNIT	PAPER NUMBER
SAN FRANC	CISCO, CA 94111-3834		3736	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
•	10/606,668	HANNULA ET AL.				
Office Action Summary	Examiner	Art Unit				
	Eric F Winakur	3736				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above, is less than thirty (30) days, a repl - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be time y within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE!	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on						
2a) This action is FINAL . 2b) This	This action is FINAL . 2b)⊠ This action is non-final.					
•	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims						
 4) Claim(s) 1-17 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) 1-17 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. 						
Application Papers		•				
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) accomposed and applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Examine 11.	epted or b) objected to by the I drawing(s) be held in abeyance. See tion is required if the drawing(s) is obj	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).				
Priority under 35 U.S.C. § 119						
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 						
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08 Paper No(s)/Mail Date 6/26; 5/10; 12/20.	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:					

DETAILED ACTION

Double Patenting

1. Applicant is advised that should claim14 be found allowable, claim 16 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 5 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim improperly includes a portion of a living body (forehead) as an element of the claimed invention.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 5. Claims 1 7, 9 11, and 13 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Toomim et al. (USPN 5,995,857 cited by Applicant). Toomim et al.

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teach an optical measurement arrangement for performing measurements from a subject's forehead that includes emitters and detectors attached to a substrate which may be adhesively attached to the subject or placed in contact with the subject via a cap (considered to be a type of hat) on the forehead or at any convenient position around the head. Applicant's attention is drawn to Figures 1 - 4 and the description of column 4, line 39 - column 6, line 36.

- 6. Claims 1 5, 9, 11, 12, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Cui et al. Cui et al. teach a cerebral oximetry arrangement that includes a substrate that conforms to a subject's forehead when measurements are performed and emitter and detector elements for performing the measurements. The device is adhesively attached to a subject (lateral [to the side] of the iris of at least one of the subject's eyes) and includes opaque elements to block interference from undesired light. Details of the device are provided in column 4, line 50 column 8, line 42 and column 13, line 40 column 14, line 18.
- 7. Claims 1, 2, 11, 12, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Matthews. Matthews teaches an optical measurement device that can measure oxygen saturation levels; the entire system can be incorporated into a headband (column 3, lines 18 21; column 4, lines 61 64). In use, the measurement elements are positioned lateral of (that is, to the side of) the iris of at least one of the subject's eyes (see Figure 1).

Claim Rejections - 35 USC § 103

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 9. Claims 6 - 8, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews as applied to claims 1 and 11 above, and further in view of Sarussi et al. Matthews teaches an optical measurement device that is incorporated into a headband, but does not particularly teach that the device may be implemented in a hat. Sarussi et al. teach an optical measurement device that is similar to that of Matthews. Sarussi et al. further teach (paragraph 0034) that their device can be attached to a head covering, including a cap, a hat, or a bandana (which is similar to the headband of Matthews). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Mattews by including the optical measuring device in a hat, as taught by Sarussi et al., since Sarussi et al. teach that a hat and bandana/headband are alternate expedients for positioning the sensor on a subject's head. With regard to claim 8, the combination teaches that the sensor is attached to the head covering (see Sarussi et al., paragraph 0034) but does not teach that the unit is adhesively attached to the hat. Without a showing of unexpected results or criticality, it would have been obvious to one of ordinary skill in the art at the time of the invention to use well known elements to attach the sensor to the hat, including use of an adhesive attachment arrangement, since the combination requires such an attachment and it has

generally been held to be within the skill level of the art to use known elements (adhesive) for their intended purpose (attaching).

10. Claims 10, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews in view of Sarussi et al. for the reasons given in paragraphs 6 and 8 above.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant cites several references related to oximetry measurement. In addition, Lewis et al. (both references) and Benni teach further cerebral oximeter arrangements. Jöbsis teaches an optical measurement arrangement that can perform measurements from a subject's forehead. Alfano et al., Boas, and Odom et al. teach that physiological measurement devices can be incorporated into hats or caps.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric F Winakur whose telephone number is 571/272-4736. The examiner can normally be reached on M-Th, 7:30-5; alternate Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on 571/272-4726. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eric F Winakur Primary Examiner Art Unit 3736

24 January 2005